carefully explored as have been a few localities on each shore, numerous cases of remarkable distribution of species will be discovered, fully as interesting as any which have been already noticed.

Several interesting questions suggest themselves in regard to the Cicindelidae. Cicindela puritana, C. macra and C. cuprascens are no doubt comparatively recent forms of a formerly single species. C. puritana, having apparently become isolated at an early date, is now confined to the Connecticut Valley, and is in several respects intermediate between the other two species, which have a wide distribution in the western and southwestern states. C. macra and C. cuprascens probably occur together in many localities. C. macra is the most abundant and widespread form, and seems to have a tendency to separate into races, a tendency not yet noticed in C. cuprascens, and not to be expected in C. puritana, on account of its limited range.

In tracing out variations of species, it is of course important to pay attention to all variations which tend to become permanent, in other words to study the formation of races, which is, of course, the first step in the formation of new species. I cannot close this essay without entering a protest against a tendency, which has sprung up recently, of ignoring these variations and of regarding as synonyms the names under which they have been described, when in reality they are varieties, in many cases quite permanent, which are from separate regions and tend very little to run into each other.

E. P. Austin.

BIBLIOGRAPHICAL RECORD.

(Continued from page 216.)

The date of publication, here given in brackets [], marks the time at which the work was received by the Editor, unless an earlier date of publication is known to him. An asterisk * before a title is the Recorder's certificate of accuracy of quotation. Corrections of errors and notices of omissions are solicited. — B. PICKMAN MANN.

Nos. 1093 to 1135 are from Can. Entom., v. 8.

* 1093. A: R. Grote. New moths. p. 111-112. [June, 1876.]

Describes Botis submedialis and Eurymene rosaria (G. & R.) from Canada, Hydrocampa ekthlipsis from N. Y. and Canada, Sisyrosea, S. nasoni

Can. Entom., v. 8.

from Va. \equiv 1 n. g., 4 n. spp.; the type of Sisyrosea is $Limacodes\ inormatus$ G. & R.

* 1094. W: H. Edwards. Notes on preparatory stages of Danais archippus. p. 119-120. [June, 1876.]

Periodicity of the developmental stages; there are four moults, and in W. Va. there are at least two broods annually.

* 1095. R. Bunker. Correspondence. p. 120. [June, 1876.]

In 1873 most of the larvae of *Ceratomia quadricornis*, at Rochester, N. Y., were brown; green ones were the exception. [See Rec., no. 1076.]

* 1096. G: W. Peck. Correspondence. p. 120. [June, 1876.]

A female Smerinthus cerisii was captured in Maine.

* 1097. JA: A. LINTNER. On Catocala pretiosa, n. s. p. 121–122. [Aug., 1876.]

Describes Catocala pretiosa n. sp. Records the capture of C. crataegi and

C. polygama.

* 1098. Lawrence Bruner. New species of Nebraska Acrididae. p. 123–125. [Aug., 1876.]

Describes Oedipoda nebrascensis, Pezotettix gracilis, P. occidentalis = 3 n. sp.

* 1099. A: R. Grote. On a new Canadian Bombycid moth. p. 125-126. [Aug., 1876.]

Describes Ellida n. g., and E. gelida n. sp., from Can. and N. Y.

* 1100. G: H: HORN. Synonymy of the Coleoptera of the Fauna Boreali-Americana, Kirby. p. 126–130 [Aug.], 150–151 [Aug.], 166–170 [Oct.], 190–193. [Nov., 1876.]

Kirby mentions 343 species, describing 238 as new species, of which 111 are retained with Kirby's specific names, and 2 are unknown or in doubt.—S: *Henshaw*, Entom. writ. Horn, no. 61.

* 1101. A: R. Grote. On Jacob Hubner and his works on the butterflies and moths. p. 131-135. [Aug., 1876.]

Argues that minute characters are sufficient for the distinction of genera, that Hübner was an advanced thinker upon classification, and that Ochsenheimer approved of the adoption of Hübner's nomenclature. Treats the discussion as settled by this paper, but does not deal with the more essential arguments of his opponents.

* 1102. V. T. Chambers. Tineina. p. 135-138, 158-160. [Aug., 1876.]

Describes Laverna? (Anybia?) gleditschiaeella and L. oenotheraesemenella = 2 n. sp.; describes the larva of the former and its habits, and describes another larva unidentified. Describes L. bifasciella, L. unifasciella, Nepticula badiocapitella = 3 n. sp. [See Rec., no. 1113.]

No. 58 was issued Feb. 14, 1879.